

5350, MSD Pike Township

PROJECT ABSTRACT

This grant concentrates on building teachers' capacity for imbedding 21st Century skills and integrating technology into their students' instruction through the use of netbooks and inquiry cycles. Pike's project has a tiered approach focused on 5 specific goals for the 3 Pike middle schools.

Initially to improve target teachers' capacities in core-subject methodology:

- Create a program for a grade level team of 5 teachers and the media specialist at each of the 3 middle schools. These 18 teachers will attend professional development in a master's level class focused on the use of student inquiry cycles and technology integration within those cycles. The teams will redesign their year-long curriculum into units of inquiry exploring content topics. The units will integrate technology within classroom activities.
- An integral component to this professional development is a technology integrator who supports target teachers' abilities to use technology effectively. This instructional coach will work daily with the educators to design and implement their curriculum, model technology integration, and support the teachers' technology integration efforts.

From this shift in core-subject teachers' instructional methodologies, we will reach these four goals:

- Increase the number of students from these 15 classrooms passing ISTEP E/LA by 4%. (Goal 1, District Improvement Plan[DIP])
- Increase the number of students from these 15 classrooms passing ISTEP Math by 4% (Goal 2, DIP)
- Positively influence target teachers' attitudes toward and aptitudes for technology integration within the inquiry process (District 3-Year Tech Plan, 09-12; Measured by teacher surveys)
- Increase target students' interest, motivation, and engagement in school work (Measured by pre/post student surveys and focus group interviews)

Phase 1: Design a professional development program for teachers focused on technology integration

- Today's society makes technology accessible 24/7 but teaching methodologies have not kept pace. Target teachers will be taught to integrate technology and information tools into class activities and assignments through the use of netbooks. Netbooks will be issued to each student in the 5 target classrooms at each middle school. Teachers will create content-area programs that systematically promote technology and inquiry. Using technology at the point-of-need enables teachers to advance their pedagogy and improve the overall quality of instruction.

Phase 2: Use inquiry cycles to explore content curriculum

- Target teachers will examine curriculum and design inquiry units around their standards. Teachers will imbed technology integration within these units so students are using it in real-world contexts. This type of instruction integrates various types of information and technology tools with classroom content. Indiana E/LA standards correlate to the use of inquiry by requiring all students' grades 2-12 be taught to use a research model.

Phase 3: Embrace innovative technologies to facilitate student learning through increased student interest, motivation, and engagement

- Youth lose interest and fail to see the relevance of their courses. Guided and free inquiry is not only an instructional methodology but also a philosophical lens requiring teachers to approach their content curriculum through the use of higher level, independent thinking. The research, synthesis, and product creation phases of inquiry cycles incorporate various information tools such as advanced database searching, graphic organizing software for information organization, as well as production software and equipment such as netbooks and cameras. The netbooks acquired through this grant will be key to allowing students 24/7 access and exploration of their core-subject concepts. During the professional development course, teachers will create online learning environments (OLE) to address students' desire to be virtually "connected."